Listing of Claims

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Previously Presented) Apparatus comprising:

a first component configured to perform a route look-up to identify a proxy egress port by which a data packet is to leave the first component, to send an Address Resolution Protocol (ARP) request for a hardware address of an egress port by which the data packet is to leave a networking router architecture to reach the receiver, to receive a response to the ARP request that includes the hardware address of the egress port, and to label the data packet with information identifying the hardware address of the egress port;

a second component comprising the egress port and configured to receive the data packet; and

an intermediate component bridging the first component and the second component and acting as a transparent bridge to forward the ARP request and the labeled data packet based on the hardware address of the egress port.

2. (Previously Presented) The apparatus of claim 1 further comprising additional intermediate components bridging the first component and the second component to forward the data.

3. (Original) The apparatus of claim 1 wherein the first component is configured to receive a packet from a first host and the second component is configured to deliver the packet to a second host.

4. (Previously Presented) The apparatus of claim 3 wherein the routing table used to identify the egress port is computed by identifying a port that leads to the second host.

5. (Previously Presented) The apparatus of claim 3 wherein:

the first component is configured to broadcast the ARP request;

the intermediate component is configured to forward the ARP request to the second component without a routing table look-up; and

the second component is configured to receive the ARP request and to send the response that includes the hardware address back to the first component.

6.   (Previously Presented)   The apparatus of claim 1 wherein the first component is configured to encapsulate the packet with the hardware address of the second component and to forward the encapsulated data packet through the intermediate component to the second component.

7.   (Canceled)

8.   (Previously Presented)   The apparatus of claim 6 wherein the second component is configured to route the encapsulated data packet received through the intermediate component to a second host.

9.   (Original)   The apparatus of claim 1 wherein the first component, the intermediate component, and the second component are connected through a network medium.

10.   (Original)   The apparatus of claim 9 wherein the network medium comprises Ethernet.

11.   (Canceled)

12.   (Previously Presented)   A method comprising:

performing a lookup in a routing table to determine a proxy egress port by which data is to leave a component;

sending a request for an address of an egress component by which the data is to leave a networking router architecture to reach a receiver;

receiving a reply to the request, the reply including the address of the egress component;

labeling the data with the address to identify the egress component; and

forwarding the data, based on the address, through an intermediate component acting as a transparent bridge to the egress component.

13. (Previously Presented) The method of claim 12 wherein the data is forwarded through additional intermediate components without a routing table look up.

14. (Previously Presented) The method of claim 12 further comprising broadcasting the request for the address of the egress component from the intermediate component.

15. (Previously Presented) The method of claim 14 further comprising:

forwarding the request for the address through the intermediate component; and

sending the reply from the egress component to the intermediate component; and

forwarding the reply from the intermediate component without looking up the routing table to the component that sent the request for the address.

16.   (Previously Presented)   The method of claim 12 wherein:

labeling the data with the address comprises encapsulating a data packet with a media access control (MAC) address of the egress component; and

forwarding the data comprises forwarding the encapsulated data packet to the egress component through the intermediate component without a routing table look-up.

17.   (Previously Presented)   The method of claim 16 further comprising:

routing the data packet from the egress component to the receiver.

18.   (Currently Amended)   An article comprising one or more machine-readable media, the one or more machine-readable media encoded with ~~that store~~ machine-executable instructions, the machine-executable instructions for causing one or more machines to:

perform a look up in a routing table to determine a proxy egress port by which data is to leave the one or more machines;

send a request for a media access control (MAC) address of an egress component by which the data is to leave a networking router architecture to reach a receiver;

receive a reply to the request, the reply including the MAC address of the egress component;

label the data with the MAC address of the egress component; and

forward the data, based on the MAC address, through an intermediate component acting as a transparent bridge to the egress component.

19. (Canceled)

20. (Currently Amended) The article of claim 18, wherein the machine-executable instructions are further for causing the one or more machines to:

receive the data in a packet from the sender; and

broadcast the request for the MAC address of the egress component from the intermediate component.

21. (Canceled)

22. (Currently Amended) The article of claim 18, wherein the machine-executable instructions are further for causing the one or more machines to:

encapsulate a packet comprising the data with the MAC address of the second component; and

forward the encapsulated packet to the egress component through the intermediate component without a routing table look-up.

23. (Currently Amended) The article of claim 22, wherein the machine-executable instructions are further for causing the one or more machines to:

route the packet from the egress component to the receiver.

24. (Previously Presented) The apparatus of claim 1 wherein the apparatus comprises a modularized network element that includes the first component, the second component, and the intermediate component, the position of the components in the network element changing based on a path of the data.

25. (Canceled)

26. (Previously Presented) The method of claim 12 wherein performing the lookup to determine the path comprises performing the lookup to determine the path in a modularized network element that includes the egress component and the intermediate component, wherein the position of the components in the network element changes based on the path.

27. (Canceled)

28. (Currently Amended) The article of claim, wherein the machine-executable instructions are further for causing the one or more machines to:

perform the look up to determine the path in a modularized network element that includes the egress component and the intermediate component, wherein the position of the components in the network element changes based on the path.

29. (Canceled)